THE CLAIMS DEFINING THE INVENTION ARE AS FOLLOWS:

1. A method of treating a drug resistant disease in a subject in need thereof comprising the step of administering to said subject a therapeutically effective amount of hyaluronan in conjunction with a chemotherapeutic agent such that said chemotherapeutic agent is more effective than when administered alone.

2. A method of enhancing the bioavailability of a chemotherapeutic agent comprising the step of administering to a subject in need thereof a therapeutically effective amount of hyaluronan.

3. A method of treating or preventing multidrug resistance or drug-resistant cells comprising the step of administering a sufficient amount of hyaluronan, prior to, together with, or subsequent to the administration of a chemotherapeutic agent.

4. A method according to any one of claims 1 to 3, wherein the chemotherapeutic agent is selected from the group consisting of carmustine (BCNU), chlorambucil (Leukeran), cisplatin (Platinol), Cytarabine, doxorubicin (Adriamycin), fluorouracil (5-FU), methoxetrate (Mexate), CPT111, etoposide, plicamycin (Mithracin) and taxanes.

5. A method according to claim 1, wherein the drug resistant disease is a cellular proliferative disorder.

6. A method according to claim 5, wherein the cellular proliferative disorder is selected from the group consisting of cancers of the breast, lung, prostate, kidney, skin, neural, ovary, uterus, liver, pancreas, epithelial, gastric, intestinal, exocrine, endocrine, lymphatic, hematopoietic system or head and neck tissue.

7. A method according to any one of claims 1 to 6, wherein the subject is mammal.

8. A method according to claim 7, wherein the mammal is selected from the group consisting of bovine, canine, equine, feline, porcine and human.

9. A method according to any one of claims 1 to 8,

wherein the administration of hyaluronan, is prior to, together with, or subsequent to the administration of a chemotherapeutic agent.

10. A method according to any one of claims 1 to 9, wherein the administration of hyaluronan and/or chemotherapeutic agent is orally, topically, or parenterally.

11. A method according to claim 10, wherein the hyaluronan and/or chemotherapeutic agent is administered together with a pharmaceutically acceptable carrier, adjuvant, or vehicle.

12. A method according to claim 10 or claim 11, wherein parenteral administration is either by subcutaneous injection, aerosol, intravenous, intramuscular, intrathecal, intracranial, intrasternal injection or infusion techniques.